

## SAFETY DATA SHEET

Document number: HPI-6001-98-00

Date prepared: 2018/8/9

Product name: PA-B

## 1. Chemical product and company identification

Product name: PA-B

Name of the supplier:

Address:

Charge section:

Emergency telephone

number:

Recommended use:

## 2. Hazards identification

GHS classification	[Category]
Flammable liquids	Not classified
Acute toxicity (oral)	Category 4
Skin corrosion/irritation	Category 1C
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Hazardous to the aquatic environment (acute hazard)	Not classified
Hazardous to the aquatic environment (long-term hazard)	Not classified

GHS label elements

Pictograms:



Signal word:

Danger

Hazard statement:

Harmful if swallowed

Causes severe skin burns and eye damage

Causes serious eye damage

May cause allergic skin reaction

May cause damage to organs(respiratory system)

May cause damage to organs(central nerve system, auditory organ) through prolonged or repeated exposure

Precautionary statements:

Prevention Do not breathe dust/fume/gas/mist/vapours/spray.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash hands and face thoroughly after handling.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

Response Immediately call a POISON CENTER or doctor/physician.

Get medical advice/attention if you feel unwell.

Rinse mouth.

Take off contaminated clothing and wash before reuse.

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Wash contaminated clothing before reuse.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of soap and water.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse continuously with water for several minutes.

Remove contact lenses if present and easy to do. Continue rinsing.

If exposed or concerned: Call a POISON CENTER or doctor.

If skin irritation or a rash occurs: Get medical advice/attention.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulation.

Specific hazards:

The product can be charged with static electricity.

This product is strongly basic.

## 3. Composition/information on ingredients

Substance or mixture:

Mixture

Chemical name	Content wt. %	CAS number
Allyloxy ether containing chemical material	70-95	Not registered
1-Butanol	0.5-1.5	71-36-3
Sodium hydroxide	0.5-4.9	1310-73-2

## 4. First-aid measures

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Immediately call a POISON CENTER or doctor/physician.

Skin contact:

Immediately wipe away the attached material with cloths and the like rapidly.

Wash with plenty of soap and water.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Immediately call a POISON CENTER or doctor/physician.

Eye contact:

Wash the eyes with clean water for at least several minutes (desirably 15 minutes or longer), (Remove the contact lenses if possible.) and get medical attention by an eye specialist immediately. During washing, fully open the eyelid with fingers and wash in such a way as to let water reach to every corner of the eyeball and eyelid.

Ingestion:

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

## 5. Fire-fighting measures

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Extinguishing media:	Chemical powder extinguisher, foam fire extinguishing media, carbon dioxide, sand
Unsuitable extinguishing media:	Straight stream water.
Specific extinguishing methods:	Spattering of flammable liquid may result from spraying water. Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Cool container with water spray.
Precautions for fire-fighters:	Fight fire with normal precautions from a reasonable distance. During fire fighting work, wear proper protective equipment.

## 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Promptly remove possible ignition sources from the vicinity.  Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
Environmental precautions:	Do not flush to sewer or allow to enter waterways. Surround this product with sandbags and earth/sand and cover it with an antistatic sheet to prevent diffusion (of smell).
Methods and materials for containment and cleaning up:	Absorb this product with inactive materials (example: dry sand, earth) and recover it into a waste material container by using a spark-resistant tool. In the case of large amount, stop leakage with earth/sand to begin with, and, then, recover it.

## 7. Handling and storage

Handling	<p>Technical measures:</p> <p>During handling, be sure to wear proper protective equipment (refer to the section 8). This product can be charged with static electricity. Take countermeasures for static electricity removal (grounding, others). Wear antistatic clothes and antistatic shoes to prevent human body electrification. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Keep away from heat/sparks/open flames/hot surfaces - No smoking.</p> <p>Do not handle the containers harshly in such a way as to make them tumbled, dropped, given a shock, or dragged.</p>
Local/total ventilation:	Use the ventilation equipment described in Section 8.
Precautions:	Not especially.
Precautions for safe handling:	Not especially.
Storage	<p>Storage conditions:</p> <p>Keep away from heat. Keep away from sources of ignition - No smoking. Protect from sunlight. Store in a well-ventilated place.</p> <p>Packaging material:</p> <p>Store in tightly closed container.</p>

## 8. Exposure controls and personal protection

Engineering controls:	Install eye and body washing facilities near the handling place. Use closed equipment/machinery or use local ventilation equipment.
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## Permissible concentration

Chemical name	ACGIH		U. S. -OSHA	
	TLV-TWA	TLV-STEL	PEL-TWA	PEL-STEL
Allyloxy ether containing chemical material	Not established	Not established	Not established	Not established
Allyloxy ether containing chemical material (impurity)	Not established	Not established	Not established	Not established
n-Butyl alcohol	20ppm	Not established	100ppm 300mg/m <sup>3</sup>	Not established
Sodium hydroxide	Not established	2mg/m <sup>3</sup> Ceiling	2mg/m <sup>3</sup>	Not established

## Personal protective equipment

Respiratory protection: Use NIOSH certified organic vapor cartridge respirator with APF=50

Hand protection: Use impervious gloves.

Eye protection: Protective glasses, goggle, protective face shield

Skin and body protection: Organic solvent impermeable protective clothes, protective shoes (Antistatic ones are desirable.)

## 9. Physical and chemical properties

## [Chemical product]

Physical state: Liquid

Form: Viscous liquid

Color: Brown

Odor: Faint Odor

Odor threshold: No data

pH: No data

Melting point/freezing point:  $\leq -28.5(^{\circ}\text{C})$

Boiling point, initial boiling point and boiling range: No data

Flashpoint: 112(^{\circ}\text{C})

Auto-ignition temperature: No data

Upper/lower flammability or explosive limits: No data

Vapor pressure: 1.02(Pa) (25^{\circ}\text{C})

Vapor density: No data

Evaporation rate: No data

Specific gravity: 0.95

Solubility: water : Insoluble  
acetone :  $\geq 100(\text{mg/ml})$   
DMSO :  $\geq 50(\text{mg/ml})$

n-Octanol/water partition coefficient: 2.43

Decomposition temperature: No data

Viscosity : No data

Kinematic Viscosity : No data

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**10. Stability and reactivity**

Stability: Stable at ambient temperatures and pressures. No reactivity with water.  
Stable under normal handling conditions.

Hazardous reactions: No data available.

Conditions to avoid: No data available.

Incompatible materials: No data available.

Hazardous decomposition products: No data available.

**11. Toxicological information**

## [Chemical product]

Acute toxicity, oral: LD50: 300-2000 mg/kg[rat]

Acute toxicity, dermal: No data

Acute toxicity, inhalation: No data

Skin corrosion/irritation: Corrosive [rabbit]

Eye damage/irritation: No data

Sensitization, respiratory: No data

Sensitization, skin: Positive LLNA [mouse]

Reproductive cell mutagenicity: Ames Test:Negative

Carcinogenicity: No data

Reproductive toxicity: NOAEL 450mg/kg/day (2week oral dosage test for rat)

Chromosomal Aberration: non-clastogenic to cultured mammalian cells

Specific target organ toxicity (Single exposure): No data

Specific target organ toxicity (Repeated exposure): No data

Aspiration hazard: No data

## [Ingredients]

## n-Butyl alcohol

Acute toxicity, oral: LD50: 700-4360 mg/kg[rat]

Acute toxicity, dermal: LD50: 3400-5300 mg/kg[rabbit]

Acute toxicity, inhalation: LC50: 24.2 mg/L[rat]

Skin corrosion/irritation: Moderate [rabbit]

Eye damage/irritation: Severe [rabbit]

Carcinogenicity: EPA:D

Specific target organ toxicity (Single exposure): Category 3(respiratory tract irritation,narcotic effects) is based on NITE GHS(2014).

Specific target organ toxicity (Repeated exposure): Category 1(central nervous system,auditory organ) is based on NITE GHS(2014).

## Sodium hydroxide

Acute toxicity, oral: LD50: 325 mg/kg[rabbit]

Skin corrosion/irritation: Corrosive [rabbit]

Eye damage/irritation: Corrosive [rabbit]

Sensitization, skin: None [human]

Reproductive cell mutagenicity: Negative

Specific target organ toxicity (Single exposure): Category 1(respiratory system) is based on NITE GHS(2009).

**12. Ecological information**

## [Chemical product]

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## Ecotoxicity

Acute hazard (Fish):	LC50(96hr): > 110 mg/L[Oryzias latipes]
Acute hazard (Crustacea):	EC50(48hr): 240 mg/L[Daphnia magna]
Acute hazard (Algae or other aquatic plants):	ErC50(72hr): 130 mg/L[Pseudokirchneriella subcapitata]
Long-term hazard (Crustacea):	NOEC: 100 mg/L[Daphnia magna]
Long-term hazard (Algae or other aquatic plants):	NOEC: 10 mg/L[Pseudokirchneriella subcapitata]
Persistence and degradability:	not readily biodegradable
Bioaccumulative potential:	No data
Mobility in soil:	No data
Hazardous to the ozone layer/other information:	No data

## [Ingredients]

## n-Butyl alcohol

## Ecotoxicity

Acute hazard (Fish):	LC50(96hr): > 100 mg/L[Oryzias latipes]
	LC50(96hr): 1730-1910 mg/L[Pimephales promelas]
	LC50(96hr): 1740 mg/L[Pimephales promelas]
Acute hazard (Crustacea):	EC50(48hr): 1000 mg/L[Daphnia magna]
	EC50(48hr): 1983 mg/L[Daphnia magna]
	EC50(48hr): 1897-2072 mg/L[Daphnia magna]
Acute hazard (Algae or other aquatic plants):	ErC50(72hr): > 1000 mg/L[Pseudokirchneriella subcapitata]
	EC50(72hr): > 500 mg/L[Desmodesmus subspicatus]
	EC50(96hr): > 500 mg/L[Desmodesmus subspicatus]
Long-term hazard (Crustacea):	NOEC(21day): 4.1 mg/L[Daphnia magna]
Persistence and degradability:	Readily biodegradable

## Sodium hydroxide

## Ecotoxicity

Acute hazard (Fish):	LC50(96hr): 45.4 mg/L[Oncorhynchus mykiss]
Acute hazard (Crustacea):	LC50(48hr): 40 mg/L[Ceriodaphnia dubia]

## 13. Disposal considerations

Disposal methods: When waste materials and waste water are to be treated, collect them into specified containers and entrust the disposal to a disposal contractor having an industrial waste disposal contractor permit.

Do not use the used containers for other purposes like filling other substances. Be sure to dispose of them after treating the content according to the above description. In case of recycling the container, return the container as it is after fitting a stopper without filling anything into it.

## 14. Transport information

IMDG	UN classification:	Class8
	UN number:	3267
	Proper shipping name:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Sodium hydroxide)
	Packing group:	III
Marine pollutant:		Not applicable
Special precautions:		Transport the material in accordance with the regulations in your country or region.

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Load the containers in such a way as not to fall down, tumble, or being damaged.

Cover the loaded cargo to prevent direct sunlight.

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15. Regulatory information

EU - REACH (1907/2006) : Not applicable  
U.S. - CERCLA/SARA : Hazardous Substances and their Reportable Quantities(Sodium hydroxide,n-Butyl alcohol)  
Section 313 - Emission Reporting(n-Butyl alcohol)  
U.S. - OSHA : Not applicable  
U.S. - TSCA (Toxic Substances Control Act) : Section 4 - Chemicals Whose Testing Requirements Have Sunset(n-Butyl alcohol)  
Section 5(h) - Reactants From Which Polyester May be Made(n-Butyl alcohol)  
Restriction at export(Japan) : Not applicable

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## 16. Other information

Disclaimer

- The described information has been prepared based on the latest materials, information, and other data available at the time of preparation; however, it does not intend to guarantee anything like contents, physical/chemical properties, and danger/hazards. Also, the cautions have been prepared for ordinary handling; therefore, for special handling, it is the obligation of each user of the product to take proper measures suitable for each handling condition. Take enough care for such matters.
- This SDS is based on JIS Z7252:2014 and JIS Z7253:2012. The GHS hazard classes not described in Section 2 correspond to "Out of categories" or "Classification not possible".
- Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.